

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Fixed oxygen analysis and gas detection equipment

with type designation(s)
Polytron® 7000

Issued to

Dräger Safety AG & Co. KGaA
Lübeck, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397**,
item No. MED/3.54. SOLAS 74 as amended, Regulation II-2/4 & VI/3 and FSS Code 15

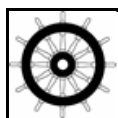
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-01-21**.

Issued at **Hamburg** on **2020-01-22**

DNV GL local station:
Hamburg CMC

Approval Engineer:
Didier Girardin



Notified Body
No.: **0098**



for **DNV GL SE**
Digitally Signed By: Mydlak-Röder, Christine
Location: DNV GL Hamburg, Germany
on behalf of

Gerhard Aulbert
Head of Notified Body

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Job Id: **344.1-006633-3**
Certificate No: **MEDB000069N**

Product description

Stationary, continuously monitoring fixed installed gas detection transmitter with electrochemical sensing element measuring oxygen.

Oxygen gas concentration can be measured within e.g. tanks, void spaces, rooms adjacent to cargo storage tanks and handling systems.

2-wire connection

Connection to central device with 2-wire cable, 0.5 (AWG 20) to 2.5 mm² (AWG 13).

Optional HART Connection.

This certificate covers following sensor for detecting oxygen: Dräger Sensor O2 and O2 LS

Component	Model
P3U (Polytron 7000, 4-20mA)	8317610
P3U (Polytron 7000, 4-20mA, HART)	8317710
P3FB (Polytron 7000, fieldbus) ¹⁾	8319440
Docking Station	8317990
Remote Sensor	8317275
Remote Adapter	8317999
DrägerSensor O2	6809720
DrägerSensor O2 LS	6809630

¹⁾ Field bus interface for maintenance communication

Application/Limitation

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

The equipment are found to comply with following location/application dependent requirements:

- EMC: Bridge and open deck zone (ref. IEC 60092-504 table 1 item 19-20)
- Enclosure: Engine room (IP66/67) (ref. IEC 60092-201 table 5)
- Vibration: General applications (ref. IEC 60092-504 table 1 item 10)
- Temperature: Location (-25°C to +70°C) (ref. IEC 60092-504 table 1 item 6-7)

Type Examination documentation

Test Report:

Treo 147-16, dated 13.07.2016, 200-16 dated 09.11.2016, 246-17 dated 10.10.2017, 291-17 dated 10.10.2017, CEcert #417.141.2 Rev.0 dated 15.09.2017, CEcert #417.141.6 Rev.0 dated 15.09.2017

Tests carried out

The relevant tests have been carried out according to the following standards:

IEC 60533:2015.

IEC 60092-504:2016

Category 3: (explosive gas atmospheres)

EN 50104:2010

EN 60079-0: 2012+A11:2013



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Marking of product

For identification to this type examination certificate the products shall be marked with:

- Manufacturer name
- Type designation with device type
- Serial Number
- Mark of Conformity (see footer on page 1)

End of Certificate